

Short Report

Atypical wound of entry and unusual presentation in a fatal stab injury

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Abstract

Stab wounds encountered in medico-legal autopsies are usually caused by sharp pointed weapons. Peculiarities of the wound of entry in stab wounds, for example due to the hilt of the weapon, movement of the weapon and sometimes by the hand of the assailant holding the weapon are often described in literature. We report an unusual presentation in a fatal stab injury wherein a single atypical external wound was associated with multiple internal injuries to the organs. The exact cause of such peculiarities can never be accurately determined, rather that can be speculated upon at the time of the autopsy and recorded for the purpose of academic interest.

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Introduction

Unusual or atypical wound of entry in fatal stab wounds that are infrequently encountered in autopsy have been described in forensic literature. Peculiarities of the external wound depend on many factors like the amount of force applied, whether twisting of the weapon took place during withdrawal of the weapon, or whether the weapon had been plunged to the hilt. In the latter case, it may be associated with bruising or abrasion around the stab wound depending upon the amount of force applied from which it may be deduced to having been caused by the hilt of the weapon, intervening items of cloth, or by the hands of the assailant holding the weapon.^{1,2} Unusual presentations are also caused by weapons such screw drivers, pitch forks, scissors in which some degree of bruising may be

seen around the wound, such wounds can be termed lacerated punctured wounds.

Atypical wound of entry caused by sharp weapons have been reported in literature^{1,2} however, the variations in the internal injuries have rarely been reported. An atypical wound of entry and its unusual internal presentation in a fatal stab injury is reported.

Case report

A male aged about 22 years was found dead in his residence (a toilet room bolted from inside). He was alleged to have committing suicide by stabbing himself on the left side of the chest with a knife that was recovered from the scene. A gaping wound measuring 3.3 × 1.3 cm × chest cavity deep was present in the left fifth inter costal space, 20 cm below clavicle in mid clavicular line. The outer end of wound showed another cut (originating from the main wound) measuring 0.5 × 0.2 cm × muscle deep giving the appearance of a 'swan tail' (Fig. 1). On approximation wound appeared wedge shaped (inner end blunt and the

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Fig. 1. Swan tail appearance of the stab wound.

outer end pointed) and measured 3.6×0.3 cm with a more obvious additional cut (Fig. 2). On internal examination the wound was directed backwards, upwards and towards the right side, traversing thoracic wall, thoracic cavity and pleura on the left side. Left pleural contained 1350 ml of fluid blood and clots weighing 60 gm. Left lung was collapsed and pale with two stab wounds; one in the anterior margin of lingual surface measuring 2.2×0.5 cm and another below it measuring 0.5×0.5 cm. Pericardium showed a gaping wound measuring 3.5×0.2 cm, corresponding to the external injury and contained 150 ml of frank blood. Heart showed two stab wounds on the anterolateral surface; one measuring 2.5×0.3 cm, penetrating the ventricle, 3.5 cm above the apex and the other 1.5×0.2 cm \times myocardium deep situated 5 cm above the first one. An epicardiac haemorrhage over an area measuring 2 cm in diameter was seen between the two wounds.

Discussion

After a knife has been plunged into the body, as it is withdrawn, it may be twisted, or the person stabbed may

move in the ensuing struggle. In such a case, a knife may produce an atypical appearance. There will be a primary stab wound with an extension of it due to the knife edge cutting a secondary path as it exits. A variation of this is seen with the knife is slightly rotated, or the victim moves slightly, so that the cutting edge of the wound will have an inverted 'V' shaped notch or fork.^{1,2} Thus with a single edged knife, one end of the wound will be squared or blunted and the sharp edge forked. This feature may be stimulated by tears in the skin at the squared off end produced by the back of the blade, the ricasso, lacerating the skin as the blade is plunged in. This can be differentiated from the fork cuts in that they are not sharp and clean and are often confined only to the superficial layers of the skin.

In the reported case a single stab wound with an additional cut was noticed on external examination. Although the corresponding pleura and pericardium showed single stab wounds, two stabs were noted in the left lung and the heart. Thus a single external stab wound with an additional cut was associated with two wounds in internal organs, a rare feature in itself. Single wound in the pleura and pericardium rules out the rare possibility of the person stabbing himself twice through the same external wound and in the process resulting in an additional cut. We believe that the atypical wound of entry and unusual internal presentation was a result of relative change in the position of the knife and the victim due to slight twisting of the weapon and a fall subsequent to the injury resulting in change in position of the internal organs (heart and lungs) in relation to the knife already in situ. This would also explain the smaller secondary wound on lungs, a relatively superficial wound in the heart and an additional cut externally.

Although the injuries can be accurately described and recorded, in most of the cases, the exact cause of such peculiarities can never be accurately determined and can only be hypothesized or speculated upon. It may be difficult for the forensic pathologist to comment upon the exact cause of such peculiarities, as the events which resulted in the peculiarities at the time of the incident can not be exactly reproduced. The situation becomes complex especially when the weapon is not recovered, hence, caution must be exercised before opining on the kind of weapon that may have caused the injury.

Conflict of Interest

None declared.

Funding

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Ethical Approval

No ethical approval is needed as it is a short report.

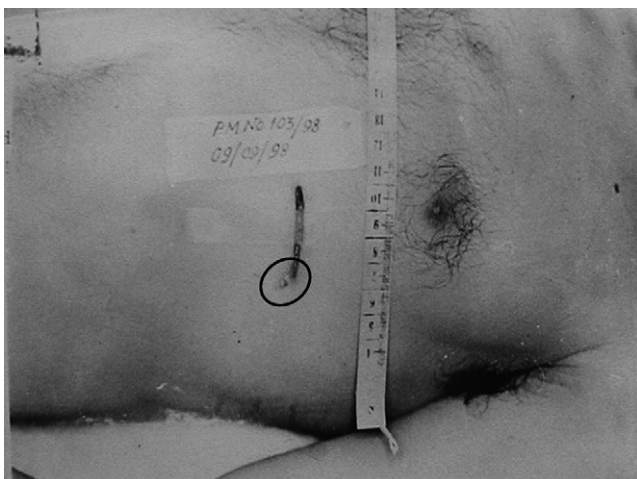


Fig. 2. Stab wound on approximation with an additional cut.

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